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# Meteorological Department St. Maarten

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## Weather & Climate

Volume 7, Issue 8

September 2022

### Summary

- Rainfall for the past 3 months was below the normal range.
- The Caribbean 'Heat Season' continues through October. Stay Hydrated!
- The 2022 Atlantic Hurricane Season is predicted to be an above average season, Be Prepared!!

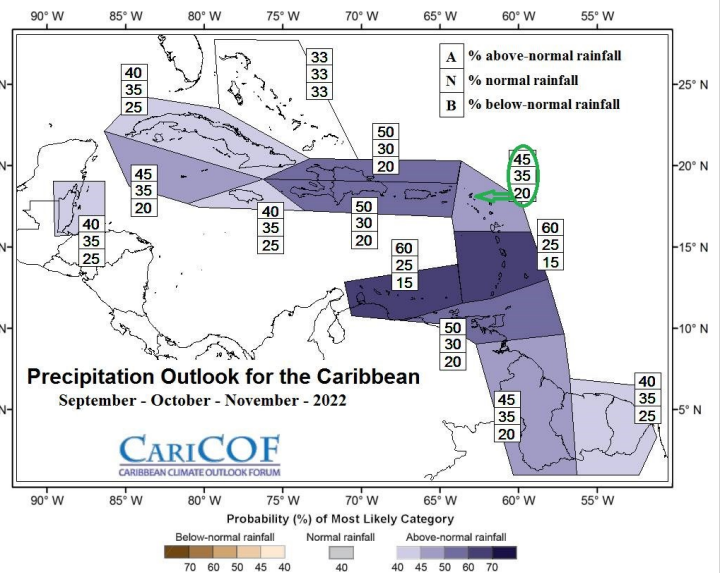
### Seasonal Outlook for September to November (SON) 2022

#### Rainfall Forecast

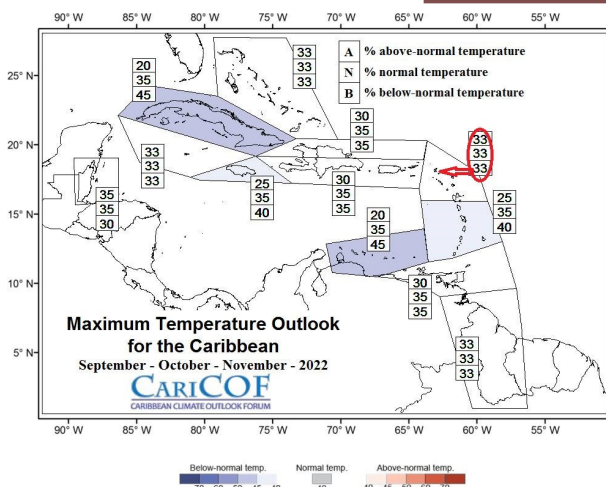
Models are indicating that rainfall totals for the season Sept-Oct-Nov 2022 are likely to be near to or above the normal range in St. Maarten and most of the eastern Caribbean.

Normal rainfall on St. Maarten during the Sept-Oct-Nov season ranges 320mm–466mm/13-18 inches, with 37 to 45 wet days. This is the wettest season on St. Maarten and often has frequent heavy showers.

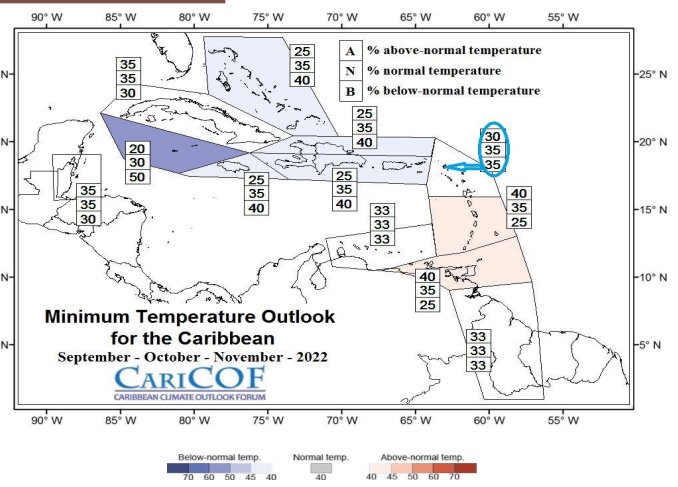
The forecast is for up to 8 (7-day) wet spells, up to 4 very wet spells and about 1 (7-day) dry spells on St. Maarten during this season.



#### Temperature Forecast



#### Day-time Temperatures



#### Night-time Temperatures

Day-time and night-time temperatures are expected to be the usual throughout the season but likely less than in recent hot years. However heatwaves are still expected in September and less likely in October.

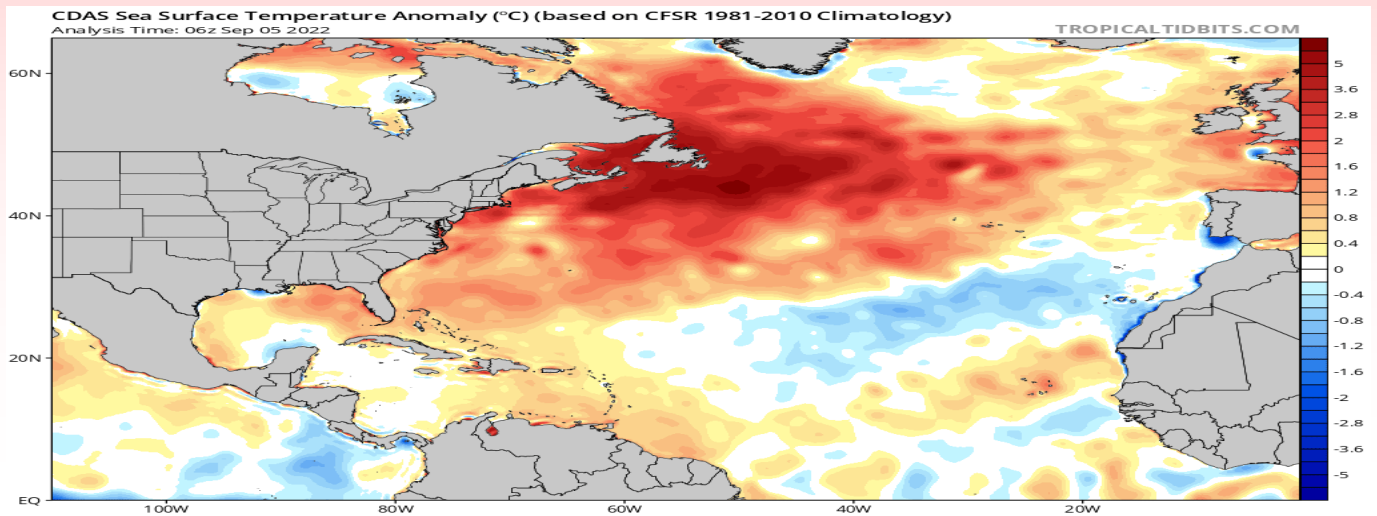
For more information on other Caribbean Outlooks go to <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>

## WHAT INFLUENCES THIS SEASON'S CLIMATE?

In mid August, sea surface temperature (SST) remained below-average in the east-central Pacific (-0.6°C). The key atmospheric variables also remained consistent with continued La Nina conditions, strengthening slightly. The La Nina Advisory remained in place.

Majority of the forecast models predict that SSTs will remain below normal at the level of a La Nina until at least February 2023.

Warm SSTs have persisted to 1°C above average around the western subtropical North Atlantic and the Gulf of Mexico. Models are forecasting SST to be slightly warmer than usual (up to 0.5°C above average) around the Caribbean and in the sub-tropical North Atlantic. Warm SSTs in and around the Caribbean tend to contribute to higher air temperature, above-average humidity, seasonal rainfall totals and an increase in the frequency of extreme rainfall.



## CORAL REEF WATCH

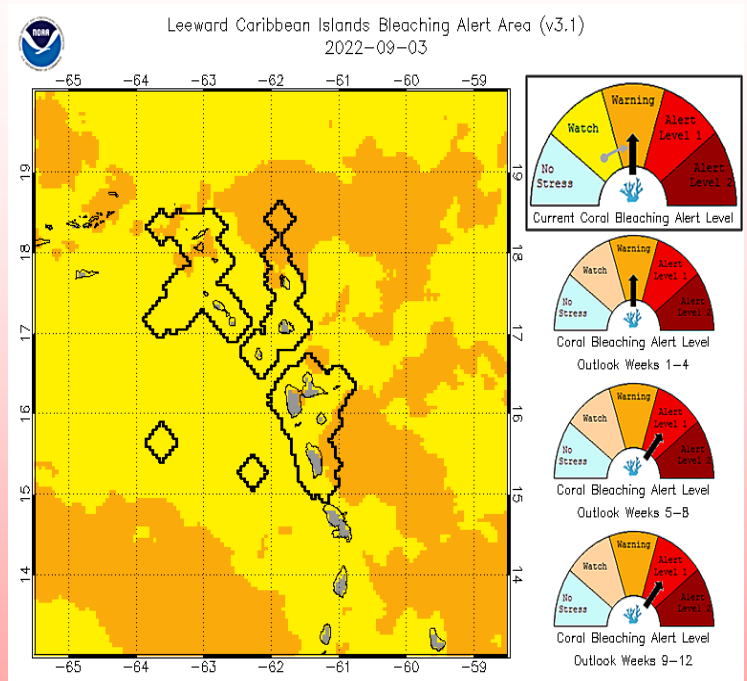
Warming continues in the Gulf of Mexico, the Caribbean basin, and the Western Atlantic.

Bleaching watch alerts issued throughout the region. Every regional virtual station is currently registering a watch alert.

Thermal stress is accumulating. Bleaching is possible within 5 to 8 weeks.

Sea Surface Temperatures are currently near the bleaching threshold.

Bleaching expected around the Leeward Islands and the rest of the eastern Caribbean by November.



**AUGUST 2022 IN REVIEW**

	<b>AUGUST</b>	
<b>Total Rainfall</b>	<b>103.1 mm</b>	<b>4.1 in</b>
<b>2022 Cumulative Rainfall</b>	<b>380.5 mm</b>	<b>15.0 in.</b>
<b>Max. 24-Hr. Rainfall</b>	<b>34.0 mm</b>	<b>0.5in.</b>
<b>No. Rain Days (≥1.0 mm)</b>	<b>12 days</b>	
<b>No. Heavy Rain Days (≥10.0 mm)</b>	<b>2 days</b>	
<b>No. Thunderstorm Days</b>	<b>4 days</b>	
<b>Avg. Wind Speed</b>	<b>9 kt.</b>	<b>10 mph</b>
<b>Max. Wind Gust</b>	<b>25 kt.</b>	<b>29 mph</b>
<b>Avg. Temperature</b>	<b>29.1°C</b>	<b>84°F</b>
<b>Max. Temperature</b>	<b>33.3°C</b>	<b>92°F</b>
<b>Min. Temperature</b>	<b>24.0°C</b>	<b>75°F</b>

**Long /Short Term Seasonal Review****Year in Review  
(September 2021– August 2022)**

Total rainfall over the past twelve (12) months was below the normal range (957-1216mm). A total of 767mm/30in. of rainfall was recorded at the Princess Juliana International Airport.

**Seasonal Review  
(Jun-Jul-Aug. 2022)**

Total rainfall for the last three (3) months was 181mm/7in, this amount was below the normal range (201-267mm). There were only three (3) days with heavy rainfall (>10mm) during that period.

Rainfall for the month of August was near the normal range. Temperatures for the month of August were above normal.

The warmest day in August was the 9<sup>th</sup> with an average temperature of 30.6°C/87°F. The coolest day was the 19<sup>th</sup> with an average temperature of 28.2°C/83°F.

The day with the most sunshine hours in August was the 18<sup>th</sup> (11hrs:48min).

The day with the least sunshine hours in August the 6<sup>th</sup> (5hrs:48min)

The windiest day in August was the 4<sup>th</sup> with a daily average wind speed of 13kt./ 15mph.

The days with the highest wind gust were the 4<sup>th</sup>, 6<sup>th</sup> & 8<sup>th</sup> (25kt./29mph).

Skies were partly cloudy for most of the months.

There were twelve (12) days with rainfall in August, two of which were heavy rainfall days.(19<sup>th</sup> & 27<sup>th</sup>)

The longest dry spell was nine (9) days long; 7<sup>th</sup> - 15<sup>th</sup> August.

There were seventeen (17) hot days in August, eight (8) of them were very hot days.(≥32.6°C/91°F)

There were twelve (12) warm nights in August, four (4) of which were very warm nights. (>27.6°C /82°F)

There were three (3) heat wave period during the month of August. The longest heatwave was from August 8<sup>th</sup> to 16<sup>th</sup>.

**NORMAL  
SEPTEMBER CONDITIONS**

<b>Rainfall Total</b>	<b>83 – 120 mm</b>	<b>3-5 in.</b>
<b>Avg. No. of Rain days</b>	<b>12 days</b>	
<b>Daily Average Temperature</b>	<b>28.8°C</b>	<b>84°F</b>
<b>Avg. Max. Temperature</b>	<b>31.7°C</b>	<b>89°F</b>
<b>Avg. Min. Temperature</b>	<b>26.4°C</b>	<b>80°F</b>
<b>Avg. Daily Hours of Sunshine</b>	<b>8 hrs</b>	

## Implication of Forecast for Sectors

### Energy/Water Sector

Energy demand for cooling purposes will continue to increase through October.

### Tourism Sector

- Continue to observe all health protocols.
- Keep updated on weather information as we are in the hurricane season.

### Agriculture

- Drought conditions are not expected throughout this season.
- The potential for flooding and flash flooding remains high.

### Health

- On hot days, excessive UV exposure can cause skin damage across the population on sunny days. Keep Hydrated!
- Persons with respiratory illnesses should take the necessary precautions during Saharan dust episodes and monitor daily forecasts for more information.
- Proper management of water storage containers e.g. covering with protective mesh helps to reduce the risk of potential breeding sites for mosquitoes.

## 2022 Atlantic Hurricane Season

For the 2022 season so far, there have been five (5) named storms one (1) became a hurricane (Danielle). The predictions continue to indicate above normal activity this season.

Sea surface temperatures remain warm, the presence of La Nina conditions in the Pacific Ocean, weaker easterly trade winds and weaker than average vertical wind shear are some of the reasons for the above average activity forecasted.

Based on long-term averages, in an average season there are about fourteen (14) named storms out of which seven (7) become hurricanes and three (3) of them are usually major hurricanes (with wind 111mph or higher).

The National Oceanic & Atmospheric Administration (NOAA) released their latest predictions for the season which suggests above normal activity.

Named Storms: 14–20

Hurricanes: 6–10

Major Hurricanes: 3–5

Presently, Hurricane Danielle and tropical storm Earl are over the north and western Atlantic respectively while an area of disturbed weather is in the eastern Atlantic.

**Keep updated and be prepared.**

## 2022 TROPICAL CYCLONE NAMES

<del>ALEX</del>	KARL
<del>BONNIE</del>	LISA
<del>COLIN</del>	MARTIN
<del>DANIELLE</del>	NICOLE
<del>EARL</del>	OWEN
FIONA	PAULA
GASTON	RICHARD
HERMINE	SHARY
IAN	TOBIAS
JULIA	VIRGINIE
	WALTER

**BE PREPARED!!!!!!**

1. Tropical Depression	<38mph
2. Tropical Storm	39-73mph
3. Hurricane	74+mph

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